

Regular Atwood Machine

Mass 1	Mass 2	Net Force	Acceleration	Tension
1	2	9.8	3.27	13.07
3	4	9.8	1.40	33.60
10	14	39.2	1.63	114.33
9	12	29.4	1.40	100.80

Modified Atwood Machine (No friction)

Mass 1	Mass 2	Net Force	Acceleration	Tension
2	1	9.8	3.27	6.53
3	4	39.2	5.60	16.80
14	10	98	4.08	57.17
9	9	88.2	4.90	44.10

Modified Atwood Machine (Friction)

Mass 1	Mass 2	μ_s	μ_k	Net Force	Acceleration	Tension
2	1	0.8	0.6	0.00	0.00	-9.80
3	4	0.25	0.2	31.85	4.76	20.16
14	10	0.9	0.85	0.00	0.00	-98.00
9	12	0.1	0.05	108.78	5.39	52.92

Inclined Atwood Machine (No friction)

Mass 1	Mass 2	θ	Net Force	Acceleration	Tension
2	1	25	1.52	0.51	9.29
3	4	15	31.59	4.51	21.15
14	10	30	-29.40	-1.23	85.75
9	12	25	80.33	3.83	71.70

Inclined Atwood Machine (Friction)

Mass 1	Mass 2	θ	μ_s	μ_k	Net Force	Acceleration	Tension
1	2	25	0.8	0.6	14.27	4.76	10.09
3	4	15	0.25	0.2	33.52	4.79	20.05
10	14	30	0.9	0.85	65.06	2.71	99.25
9	12	25	0.1	0.05	113.60	5.41	52.68